IN THE CLAIMS

Please cancel claims 15, 17 and 18. A complete listing of the claims is shown below.

1.   (Original)   A method for scheduling data transmission in a wireless communication system, the method comprising:

identifying one or more sets of terminals, each set including one or more terminals and corresponding to a hypothesis to be evaluated based on one or more criteria;

assigning a plurality of transmit antennas to the one or more terminals in each set;

evaluating performance of each hypothesis based on channel state information (CSI) associated with each terminal, the CSI being indicative of channel characteristics between the respective terminal and the corresponding transmit antennas; and

selecting at least one set of terminals to receive data transmission based, at least in part, on the performance of each hypothesis.

2.   (Original)   The method of claim 1 further comprising:

scheduling data transmission to the one or more terminals in the selected set.

3.   (Original)   The method of claim 1 wherein each hypothesis comprises a plurality of sub-hypotheses each of which corresponding to one or more specific assignments of the transmit antennas to the one or more terminals in the respective set and wherein the performance of each hypothesis is evaluated based on performance of the corresponding sub-hypotheses.

4.   (Original)   The method of claim 1, wherein the CSI for each terminal comprises signal-to-noise-plus-interference ratio (SNR) estimates derived at the respective terminal based on signals transmitted from the transmit antennas.

5.   (Original)   The method of claim 1, wherein the evaluating includes:

computing a performance metric for each hypothesis as a function of throughput achievable by each terminal in the respective set.

6.   (Original)   The method of claim 1, wherein the plurality of transmit antennas are assigned to the one or more terminals in each set based on priority of terminals in the set.

7.   (Original)   The method of claim 6, wherein the priority of each terminal is determined based on one or more factors including quality of service (QoS) associated with the respective terminal.

8.   (Original)   An apparatus for managing data transmission in a wireless communication system, the apparatus comprising:

means for identifying one or more sets of terminals, each set including one or more terminals and corresponding to a hypothesis to be evaluated based on one or more criteria;

means for assigning a plurality of transmit antennas to the one or more terminals in each set;

means for evaluating performance of each hypothesis based on channel state information (CSI) associated with each terminal, the CSI being indicative of channel characteristics between the respective terminal and the corresponding transmit antennas; and

means for selecting at least one set of terminals to receive data transmission based, at least in part, on the performance of each hypothesis.

9.   (Original)   The apparatus of claim 8 further comprising:

means for scheduling data transmission to the one or more terminals in the selected set.

10.   (Original)   The apparatus of claim 8 wherein each hypothesis comprises a plurality of sub-hypotheses each of which corresponding to one or more specific assignments of the transmit antennas to the one or more terminals in the respective set and wherein the performance of each hypothesis is evaluated based on performance of the corresponding sub-hypotheses.

11.   (Original)   The apparatus of claim 8, wherein the CSI for each terminal comprises signal-to-noise-plus-interference ratio (SNR) estimates derived at the respective terminal based on signals transmitted from the transmit antennas.

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12.   (Original)   The apparatus of claim 8, wherein means for evaluating includes: means for computing a performance metric for each hypothesis as a function of throughput achievable by each terminal in the respective set.

13.   (Original)   The apparatus of claim 8, wherein the plurality of transmit antennas are assigned to the one or more terminals in each set based on priority of terminals in the set.

14.   (Original)   The apparatus of claim 13, wherein the priority of each terminal is determined based on one or more factors including quality of service (QoS) associated with the respective terminal.

15.   (Cancelled)

16.   (Cancelled)

17.   (Cancelled)

18.   (Cancelled)

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